

Metal Fabricator – Competency Changes

Current Program Outline Competencies found in Harmonized Level 3

This document is to show the **30 additional hours** from current level 3 to harmonized level 3

Green = Added

Red = Removed/Moved/Combined

180 hours
(Increased by 30 hours)

C Solve Trade Math Problems

C12 Solve simple problems using trigonometry

C13 Solve complex problems using trigonometry (CL 4 → HL 3)

C14 Solve problems using segmental functions (CL 4 → HL 3)

E Use Shop Equipment

E2 Use the hydraulic brake press (CL 2 → HL 2 & 3)

E8 Use the power shape rollers (power angle rolls) (CL 2 → HL 2 & 3)

E9 Use the CNC shape cutting machine (CL 3 → HL 2 & 3)

E10 Use a CNC brake press (CL 4 → HL 2 & 3)

E11 Describe CNC punching equipment (CL 4 → HL 3)

E12 Develop and use programs for CNC shape cutting equipment (CL 4 → HL 2 & 3)

G Read Drawings

G5 Interpret standard weld symbols

G11 Interpret specialized multi-view shop drawings

G12 Interpret complex structural, erection and detail drawings

G13 Describe electronic detailing (CL3 → HL2)

G14 Interpret computer generated shop drawings (CL 4 → HL 2 & 3)

G15 Interpret specialized structural, erection and detail drawings (CL 4 → HL 2 & 3)

H Use Material Handling Equipment

H1 Use safe rigging practices (CL 1 → HL 1 & 3)

H2 Use material handling equipment and storage practices (CL 1 → HL 1 & 3)

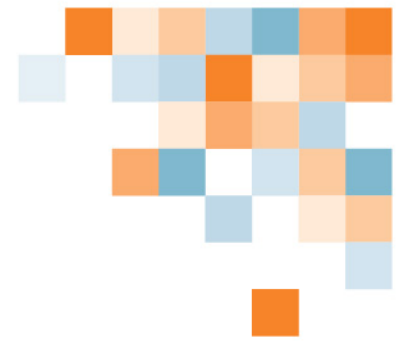
H5 Describe safe work practices related to mobile equipment (CL 1 → HL 1 & 3)

I Use Structural Layout Techniques

I4 Describe standard allowances, required accuracy and shop tolerances (CL 2 → HL 2 & 3)

I8 Layout complex templates from a complex structural shop drawing

I9 Describe the process operation for various structural projects



J	Develop Plate and Structural Patterns
J5	Develop shop layout and processing for plate and structural sections (CL 2 → HL 2 & 3)
J7	Develop various patterns using the triangulation method
J8	Develop specialized patterns using the triangulation method (CL 4 → HL 3)
K	Use Surface Preparation and Finishing Methods
K2	Describe the types of paints used in industry (CL 1 → HL 3)
K3	Identify the common methods of paint application (CL 1 → HL 3)
L	Fabricate Plate and Structural Patterns
L4	Describe modern alignment methods (CL 2 → HL 2 & 3)
L10	Layout complex templates from a machine detail drawing (CL 2 → HL 2 & 3)
L11	Fabricate a reduced tank with fittings (CL 3 → HL 2)
L12	Fabricate a square to round transition
L13	Plan, cost and fabricate a structural frame
L14	Plan, cost and fabricate an eccentric hopper (CL 3 → HL 2)
L17	Fabricate a reduced spiral staircase (CL 4 → HL 2 & 3)
O	On-site Installation
O3	Determine required equipment (CL 4 → HL 1 & 3)
O4	Determine required consumables (CL 4 → HL 2 & 3)
O6	Describe installation of components (CL 4 → HL 2 & 3)

LEGEND

CL - Current Level

HL = Harmonized Level